Attorney Docket No. Q59675
PATENT APPLICATION

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/615,700

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended)A method of transmitting user data over a synchronous digital communication network (SDH), comprising:

structuring the user data into user data units;

~~wherein~~packing the user data units ~~the user data are packed~~ in multiplex units;~~, wherein~~

contiguously concatenating a plurality of multiplex units ~~are contiguously concatenated~~ (VC-4-4c);~~, wherein~~

transmitting the contiguously concatenated multiplex units ~~are transmitted~~ in a common transport module (STM-4);~~,~~ and ~~wherein~~

converting the contiguous concatenation of the multiplex units (VC-4-4c) ~~is converted~~ to a virtual concatenation of multiplex units (VC-4-Nv),

wherein ~~characterized in that~~ only part of the multiplex units are filled with user data units, and ~~that~~ wherein in the conversion, those multiplex units which are not filled with user data units are omitted.

2. (Currently amended)A method as claimed in claim 1 wherein the user data units are data packets structured according to the Internet Protocol, wherein the packing of the data

packets in multiplex units is performed in an IP router (10; 40), wherein the conversion of the contiguous concatenation (VC-4-4c) to the virtual concatenation (VC-4-Nv) is performed in a multiplexer (12; 50) of the synchronous digital communication network (SDH), and wherein the IP router (10; 40) informs the multiplexer (12; 50) which of the concatenated multiplex units are filled with data packets.

3. (Currently amended)A method as claimed in claim 1 wherein the user data units are data packets structured according to the protocol for the asynchronous transfer mode (ATM), wherein the packing of the data packets in the multiplex units is performed in an ATM switch, wherein the conversion of the contiguous concatenation to the virtual concatenation is performed in a multiplexer (12; 50) of the synchronous digital communication network (SDH), and wherein the ATM switch informs the multiplexer (12; 50) which of the concatenated multiplex units are filled with data packets.

4. (Original)A method as claimed in claim 1 wherein the virtual concatenation is subsequently converted back to a contiguous concatenation, adding empty multiplex units corresponding to the previously omitted multiplex units.

5. (Currently amended) A multiplexer (12; 50) for a synchronous digital communication network (SDH), comprising:

a first interface (51) for receiving a first message signal which is organized into transport modules and contains a plurality of contiguously concatenated multiplex units carrying user data to be transmitted;

a conversion facility (53, 54, 55, 56) for converting the contiguous concatenation to a virtual concatenation of the multiplex units; and

at least a second interface (58) for sending at least a second message signal which is organized into transport modules and contains the virtually concatenated multiplex units,

characterized in that the user data consists of user data units, and that if only part of the contiguously concatenated multiplex units are filled with the user data units, the conversion facility (53, 54, 55, 56), when converting the contiguous concatenation to the virtual concatenation, omits those multiplex units which are not filled with user data units.

6. (Currently amended)A peripheral device (10, 40) for transmitting user data over a synchronous digital communication network, the peripheral device (10; 40) comprising:

a signal-generating unit (43) for generating a message signal which is organized into transport modules and contains a plurality of contiguously concatenated multiplex units carrying user data, consisting of user data units, to be transmitted;, and

a multiplexing facility (42, 46) for packing the user data units in the multiplex units,

characterized in that the multiplexing facility (42, 46) fills only part of the multiplex units with user data units.